AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Cancelled)

2. (Previously presented) A method for treating a disorder, disease or condition benefiting from an increase in mitochondrial respiration; wherein the disorder, disease or condition is selected from the group consisting of obesity, diabetes, and impaired glucose tolerance, comprising administering to a patient in need thereof a therapeutically effective amount of a compound having a slope calculated from the equation

$$X^n = (Y_2-Y_0)/ (Y_1-Y_0)$$

wherein

Y_0 is the degree of stimulation measured as counts per minute (cpm) of radioactivity in control samples without added test compound,

Y_1 is the degree of stimulation measured as cpm of radioactivity with added test compound in a concentration of $EC_{50}/2$,

Y_2 is the degree of stimulation measured as cpm of radioactivity with added test compound in concentration of $2xEC_{50}$, and

X is 2,

or

Y_1 is the degree of stimulation measured as cpm of radioactivity with added test compound in a concentration of $EC_{50}/3$,

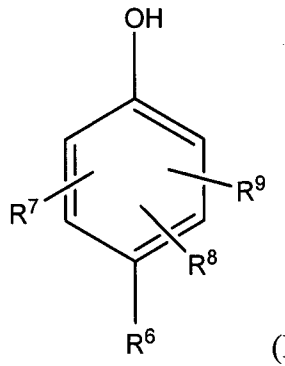
Y_2 is the degree of stimulation measured as cpm of radioactivity with added test compound in concentration of $3xEC_{50}$, and

X is 3,

n is the slope,

wherein,

the value of the slope n calculated for the compound is less than the value of the slope n calculated for carbonylcyanide *p*-trifluoromethoxy-phenylhydrazone as test compound; and wherein the compound is of formula (III)



(III)

wherein

R^6 is halogen, -CHO, $-CO_2R^{43}$, $-COR^{43}$, $-SO_3H$, $-CCl_3$, $-CF_3$, -CN, $-CH=CH-R^{44}$, $-C(R^{44})(R^{45})$, $-SOR^{43}$, $-SO_2R^{43}$ or aryl substituted with from one to five substituents selected from halogen, -CHO, $-CO_2R^{43}$, $-COR^{43}$, $-SO_3H$, $-CCl_3$, CF_3, -NO, NO_2, -CN, $-CH=CH-R^{44}$, $-CH(R^{44})(R^{45})$, $-SOR^{43}$, or $-SO_2R^{43}$, wherein

R^{43} is hydrogen or alkyl; and

R^{44} and R^{45} independently of each other are halogen, -CHO, $-CO_2R^{46}$, $-COR^{46}$, $-SO_3H$, $-CCl_3$, $-CF_3$, -NO, $-NO_2$, -CN, $-SOR^{46}$, $-SO_2R^{46}$, wherein

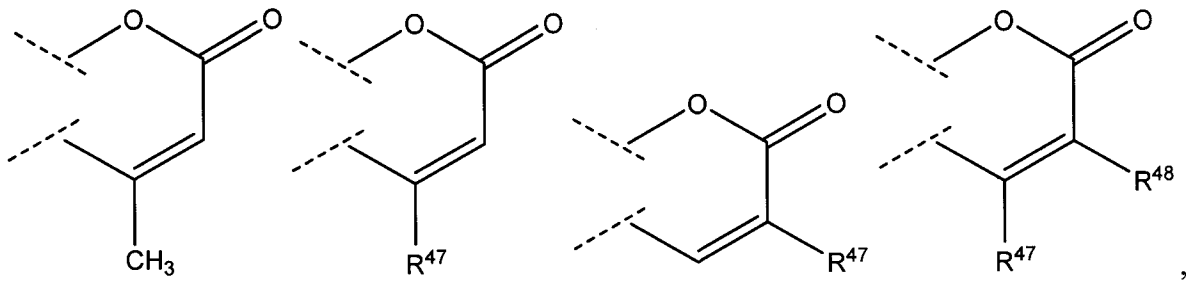
R^{46} is hydrogen, alkyl, or aryl;

R^7 is alkyl, nitro, halogen, alkyl-O-, alkyl-C(O)-, or alkyl-C(O)-O-; and

R^8 and R^9 independently of each other are hydrogen, alkyl, nitro, halogen, alkyl-O-, alkyl-C(O)-, alkyl-C(O)-O-, or aryl;

or

R^7 and R^8 together form one of the diradicals



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wherein R^{47} and R^{48}, independently of each other, are hydrogen, alkyl, nitro, halogen, alkyl-O-, alkyl-C(O)-, or alkyl-C(O)-O-,

wherein the two valence atoms in the diradical are attached to adjacent carbon atoms in the phenyl ring; and

R^9 is hydrogen, alkyl, nitro, halogen, alkyl-O-, or alkyl-C(O)-;

or a pharmaceutically acceptable salt, or solvate thereof.

3. (Cancelled)

4. (Cancelled)

5. (Previously presented) A method according to claim 2, wherein the condition is obesity.

6. (Previously presented) A method according to claim 2, wherein the disease is type 2 diabetes.

7. (Original) A method according to claim 6, wherein the patient in need thereof is obese.

8-13. (Cancelled)

14. (Previously presented) A method according to claim 2, wherein the compound is a chemical uncoupler.

15. (Previously presented) A method according to claim 2, wherein the compound is a cation.

16. (Cancelled)

17. (Currently Amended) A method ~~according to claim 2~~for treating a disorder, disease or condition benefiting from an increase in mitochondrial respiration; wherein the disorder, disease or condition is selected from the group consisting of obesity, diabetes, and impaired glucose tolerance, comprising administering to a patient in need thereof a therapeutically effective amount of a compound having a slope calculated from the equation

$$X^n = (Y_2 - Y_0)/(Y_1 - Y_0)$$

wherein

Y_0 is the degree of stimulation measured as counts per minute (cpm) of radioactivity in control samples without added test compound,

Y_1 is the degree of stimulation measured as cpm of radioactivity with added test compound in a concentration of $EC_{50}/2$,

Y_2 is the degree of stimulation measured as cpm of radioactivity with added test compound in concentration of $2xEC_{50}$, and

X is 2,

or

Y_1 is the degree of stimulation measured as cpm of radioactivity with added test compound in a concentration of $EC_{50}/3$,

Y_2 is the degree of stimulation measured as cpm of radioactivity with added test compound in concentration of $3xEC_{50}$, and

X is 3,

n is the slope,

wherein,

the value of the slope n calculated for the compound is less than the value of the slope n calculated for carbonylcyanide *p*-trifluoromethoxy-phenylhydrazone as test compound, wherein the compound is 4-hydroxy-3-nitroacetophenone.

18-49. (Cancelled)